

Applicant : DeFazio, et al.  
Serial No. : 10/614,739  
Filed : July 7, 2003  
Page : 10 of 16

Attorney's Docket No.: 09945-056002 / CTR-1B

Amendments to the Drawings:

The attached replacement sheets of drawings includes changes to FIGS. 1A, 1B, and 3 and replaces the previous sheets including FIGS. 1A, 1B, 1C, and 3.

In FIGS. 1A, 1B, and 3, reference numbers 125 and 133 were added as originally shown and disclosed in the originally filed drawings.

Attachments following last page of this Amendment:

Replacement Sheet (2 pages)

Annotated Sheet Showing Change(s) (2 pages)

### REMARKS

In response to the office action dated September 9, 2007, Applicants amended claims 70, 71, 73, and 76. Claims 1-31, 33-38, 42-53, 56, 59, 73, 75, 81-94 and are canceled. Claims 32, 39-41, 54, 55, 57-58, 60-72, 74, and 76-80 are pending. Claims 32, 63, 70, 74, 76, and 77 are independent claims. Claims 32, 39-41, 54, 55, 57-72, 74, and 76-81 are rejected. Applicant traverses these rejections and respectfully requests reconsideration of the rejected claims in light of the above amendments and following remarks. Claims 32, 39-41, 54, 55, 57-58, 60-72, 74, and 76-80 are presented for examination.

Applicants thank the Examiner for the interview held on January 8, 2008, during which the current amendments were discussed. Applicants discussed aspects and features of the scalloped profiled wheels and the tail element pivotally coupled to a portion of the body.

#### Allowable Subject Matter

Claim 73 was noted as being allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims. Claim 63 was amended to include the limitations of claim 73, and claim 73 was canceled. Applicants respectfully request a notice of allowance for claim 63 and all respective dependent claims.

#### Election/Restrictions

Applicants acknowledge the withdrawal of claims 82-94 as being constructively non-elected for being directed to the previously non-elected invention. Nevertheless, Applicants canceled claims 82-94.

#### Drawings

Applicants amended FIGS. 1A, 1B, and 3 to include reference numbers 125 and 133, as shown and disclosed in the originally filed drawings, as indicating examples of flipper portions and articulation elements, respectively.

Specification

Claim 76 was amended to provide proper antecedent basis for the terms “*the body profile*” and “*the angle and position of the tail element*”.

Claim Rejections Under 35 U.S.C. §112

Claims 82-94 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Claims 82-92 are canceled. Therefore, Applicants need not address any rejections thereof.

Claims 71 and 73 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 71 was amended to provide proper antecedent basis for “*the base*” by deleting the term “base” and adding the term “body” as recited in claim 63, from which 71 is dependent upon.

Claim 73 was amended to remove any indefiniteness of the term “*profile*” by reciting “a wheeled structure profile”.

Applicants respectfully request reconsideration of claims 71 and 73, and a notice of allowance.

Claim Rejections Under 35 U.S.C. §103

Claims 32, 39-41, 54, 55, 57-72, 74 and 76 are rejected under 35 U.S.C. §103(a) as being obvious over U.S. patent No. 4,369,989 to Mankey in view of U.S. patent No. 4,311,203 to Van Der Lely.

Mankey discloses stabilizing jacks 60 pivotally mounted on the frame assembly 14 of a skid steered vehicle 10 to stabilize the vehicle. A jack 60 is pivotally mounted at a first end of each of the elongate load bearing frames 18 of the frame assembly 14. The jacks may be released from a storage position so that a first edge 65 of the jack engages the surface 79. When the vehicle is advanced forward, the jacks pivot onto a support surface 68 of the jack 60. In this position, the vehicle is supported on the jacks 60, middle wheel members 44 and the rear wheel

members 46. The vehicle may be moved rearward to pivot the jacks out of the support position. A cylinder 30 having a piston connected to a cable 70 maintains the jacks 60 in a storage position after use. In a second example, jacks 92 are mounted on a cross tube 88 extending between the load-bearing frames 18.

Regarding claims 32 and 76, Mankey fails to disclose or suggest a “tail”, let alone a tail configured to contact a first step of a stairway and lift the first end wheel element to attain the first step. Examiner relies on Mankey’s disclosure of a jack as showing a tail, but has not shown how this reference or any other cited reference discloses a tail that necessarily achieves or is capable of contacting a first step of a stairway and lifting the first end wheel element to attain the first step. Speculation that an item in a reference may be capable of such a task is not enough to establish a *prima facie* case of obviousness. The Examiner must show that the structure in the cited reference necessarily achieves the recited limitations.

Since the Examiner has not identified any portion of Mankey that discloses or suggests "contacting a first step of a stairway and lifting the first end wheel element to attain the first step", and because Mankey does not in fact disclose or suggest this function, structure, or even possibility, Applicants conclude that the Examiner's reasoning can only be based on a theory of inherency. If the Examiner is relying on inherency, the extrinsic evidence “must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” In re Robertson, 169 F.3d 743, 745 (Fed. Cir. 1999); MPEP 2163.07(a). Moreover, Applicants respectfully submit that a showing that Mankey necessarily achieves the recited limitations cannot be made. For example, the motors featured in Mankey may not have sufficient drive strength; the centers of gravity of the vehicle and jack could render stair-climbing impossible; the Mankey vehicle is clearly not capable of continuous position control of the jack that would permit contacting a first step of a stairway and lifting the first end wheel element to attain the first step. Furthermore, the vehicle electronics and power may not permit the necessary coordinated control to achieve the recited function. Indeed, there is no reason to believe a structure as large, heavy and application-specific as the device disclosed in Mankey could ever contact a first step of a stairway and lift the first end wheel element to

attain the first step. For these reasons, Applicants submit that while the Mankey reference is prior art for all that it shows, it does not expressly, inherently, or otherwise disclose a tail configured to contact a first step of a stairway and lift the first end wheel element to attain the first step.

Regarding claim 70, the arguments with respect to claims 32 and 76 apply. Furthermore, Mankey fails to disclose or suggest a tail configured to contact a first step of a stairway and lift a forwardmost wheel element of either of the first or second sets of wheel elements to attain the first step. Mankey's jacks 92 may be too weak or improperly configured to achieve such a feat. Mankey only discloses a jack on a forward portion of the vehicle (opposite of a tail) that is lowered into contact with a ground surface. The vehicle is then driven onto the jack, which pivots underneath the vehicle. The jack of Mankey pivots freely and is not disclosed as being configured to actually lift the first end wheel element to attain the first step of a stair. Thus, Applicants respectfully submit that Mankey, either alone or in combination with Van Der Lely, does not establish a *prima facie* showing of obviousness with respect to claims 32, 70, and 76.

Regarding claim 74, Applicants amended claim 74 to include the limitations of claim 73, which was noted as otherwise allowable, if rewritten in independent form.

Applicants respectfully request reconsideration of claims 32, 70, 74, and 76 and their respective dependent claims, and respectfully requests a notice of allowance.

Claims 77 and 79-81 are rejected under 35 U.S.C. §103(a) as being obvious Mankey in view of U.S. patent No. 5,323,867 to Griffin et al.

Griffin discloses a robot transport platform adapted for locomotion and having three wheels mounted on both left and right sides of a base. The fore end 82 and aft end 86 of the platform 10 have omnidirectional wheels 16 that include rollers 50 mounted on an annular shaft 56 disposed about a circumference of a hub 54 of the wheel. The omnidirectional wheels are configured to minimize lateral skidding when the vehicle pivots. The Examiner relies on Griffin as disclosing a scallop profiled wheel as recited in claim 77.

Applicants amended claim 77 to include the limitations of claim 81. Griffin fails to disclose or suggest a wheel having a scalloped profile selected such that a concave portion of the scallop profile is operable to substantially engage a bullnosed stair step edge. The Examiner relies on FIGS. 3 and 4 of Griffin for the rejection, however, these figures only depict spherical

rollers 50 disposed about a circumference of a hub 54 of the wheel 16, with spacers 58 in between the rollers. When the platform pivots in place, the rollers about the circumference of the wheels roll across the supporting ground surface to prevent lateral skidding of the wheels. Griffin makes no suggestion of the wheel's ability to engage a bullnosed stair step edge. The wheel disclosed in Griffin would slip off the edge of a bullnosed stair step edge due to the spherical rollers and would be unable to engage the stair step edge in the same manner as a scallop profiled wheel having a concave portion configured for such a task. Thus, Applicants respectfully submit that Mankey, either alone or in combination with Griffin, does not establish a *prima facie* showing of obviousness with respect to claim 77. Applicants respectfully request reconsideration of claim 77 and its respective dependent claims, and respectfully request a notice of allowance.

Claim 78 is rejected under 35 U.S.C. §103(a) as being obvious over Mankey, as modified by Griffin, in further view of Van Der Lely.

The Examiner cites Van Der Lely as teaching a wider tracked intermediate wheel. However, Van Der Lely does not provide any teaching relevant to the deficiency of the prior art as applied to claim 77, as discussed above, therefore Applicant submits that this claim is allowable at least for the reasons discussed above.

In the examiner interview on January 8, 2008, additional references were discussed, e.g., U.S. Patent Nos. 4,483,407 and 6,336,642. Applicants respectfully submit that these references, like Mankey, do not include any express disclosure or teaching that would permit the disclosed devices to necessarily contact a first step of a stairway and lifting the first end wheel element to attain the first step. Just as with the Mankey, the devices disclosed in these additional references may not have the motor or position control, power, weight distribution, degrees of freedom, or structural strength to contact a first step of a stairway and lift the first end wheel element to attain the first step.

Applicant respectfully requests reconsideration of the pending claims and respectfully request a notice of allowance.

### CONCLUSION

The attorney of record below invites the Examiner to call with any questions regarding this matter, so that we can continue to advance the prosecution of this matter.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reason for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to amendment.

No charges are believed due. However, if any fees are due, they are being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply all charges or credits to Deposit Account No. 06-1050, referencing the above identified Attorney Docket Number.

Respectfully submitted,

Date: January 10, 2008

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